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LIQUID CRYSTAL DISPLAY ELEMENT AND ITS PRODUCTION

Patent Number: JP11133438

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Inventor(s): MIYATA SHINICHI; TANAKA YOSHINORI; YAMAZAKI ATSUSHI

Applicant(s):: MATSUSHITA ELECTRIC IND CO LTD

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Abstract

PROBLEM TO BE SOLVED: To maintain the spraying uniformity of spacers, to enhance adhesion property between substrates and to improve a display grade by using ferromagnetic spacers and using magnetic field for holding the ferromagnetic spacers between glass substrates.

SOLUTION: The glass substrates with ITO electrodes are used for the substrate A and the substrate B and the ferromagnetic material spacers C are used for the spacers. The spacers C are sprayed by using a dry process spraying device by nitrogen blow. An acrylic resin material is used for an end-sealing material D. Further, the uniform magnetic field by a solenoid device is applied to the magnetic field F. The substrate A and the substrate B are bonded to each other by the end-sealing material D of an acrylic resin material within the magnetic field F, by which the ferromagnetic material spacers C are uniformly dispersed to the prescribed positions without movement between the substrate A and the substrate B. As a result, the spacing between the substrate A and the substrate B is made uniform and the execution of the uniform display is made possible.

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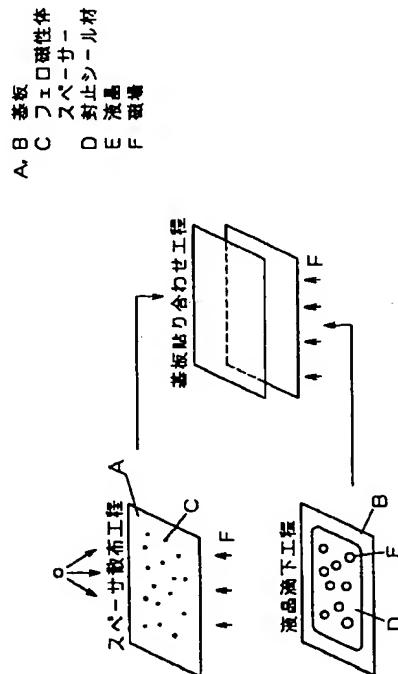
(21)出願番号	特願平9-309669	(71)出願人	000005821 松下電器産業株式会社 大阪府門真市大字門真1006番地
(22)出願日	平成9年(1997)10月24日	(72)発明者	宮田 偵一 大阪府門真市大字門真1006番地 松下電器 産業株式会社内
		(72)発明者	田中 好紀 大阪府門真市大字門真1006番地 松下電器 産業株式会社内
		(72)発明者	山崎 敦 大阪府門真市大字門真1006番地 松下電器 産業株式会社内
		(74)代理人	弁理士 栗野 重孝

(54)【発明の名称】 液晶表示素子とその製造法

(57)【要約】

【課題】 基板貼り合わせ時に生じる液晶の広がりによってスペーサーが移動してしまい、接着剤付きスペーサーは、その接着剤のため液晶パネルの配向マージンを少なくしてしまう問題点があり、前記問題点のない液晶表示素子を提供することを課題とする。

【解決手段】 本発明は、フェロ磁性体スペーサーCを基板Aに散布し、それを保持する磁場Fを用いることで面内の均一性と基板A、Bとの接着性を高め、表示品位を向上させる。



【図3】

